## FIG. 1

START (CUTTING PROCESSING PROCESS) JOINT ELECTROCASTING USE MOTHER DIE SUPPORTING MEMBER AND ELECTROCASTING USE MOTHER DIE MEMBER AND OBTAIN THE MEMBER E S01 ATTACH JIG TO MEMBER E AND GIVE THE MATCH-MARK AND ID ~S02 REGISTER MEMBER E AND ID OF JIG IN PROCESS CONTROL DATA BASE. AND RECORD ATTACHING SURFACE, TIGHTENING TORQUE, ·S03 AND WORKING ENVIRONMENTAL TEMPERATURE SET (JIG + MEMBER E) TO CHUCK OF SPDT PROCESSING MACHINE ~S04 CONDUCT OUTER SHAPE PROCESSING OF MEMBER E, FORM CURVED SURFACE SHAPE ON END SURFACE OF ELECTROCASTING USE -S05 MOTHER DIE MEMBER SIDE, AND PROCESS CONCENTRIC CIRCLE MARK 1 RECORD WORKING ENVIRONMENTAL TEMPERATURE IN PROCESS CONTROL DATA BASE, AND TAKE OFF (JIG + MEMBER E) FROM CHUCK OF SPDT S06 PROCESSING MACHINE TAKE OFF JIG FROM (JIG +MEMBER E) ~S07 TAKE OFF MEMBER E FROM FIB PROCESSING MACHINE STAGE -S08 DETECT MARK 1 BY IMAGE RECOGNITION MEANS OF FIB PROCESSING MACHINE ~S09 FIB-PROCESS 3 MARKS 2 OR MORE ON THE BASIS OF MARK 1. S11:TAKE OFF -S10 (MEMBER E) FROM FIB PROCESSING MACHINE STAGE TAKE OFF MEMBER E FROM FIB PROCESSING MACHINE STAGE -S11 (SHAPE MEASURING PROCESS) SET MEMBER E TO SHAPE MEASURING UNIT ~S12 **DETECT MARK 2 BY IMAGE RECOGNITION MEANS** ~S13 SHAPE-MEASURE ON THE BASIS OF MARK 2, AND STORE ERROR -S14 DISTRIBUTION DATA IN STORING MEANS TAKE OFF MEMBER E FROM SHAPE MEASURING UNIT -S15 (RESIST FILM FORMING PROCESS) ADHERE PROTECTIVE TAPE OF MARK 2 ~S16 SET MEMBER E TO SPIN-COATER ~S17 CONDUCT PRE-SPIN WHILE FLOWING DOWN RESIST ~S18 CONDUCT PRIMARY SPIN ∽S19 TAKE OFF MEMBER E FROM SPIN-COATER ~S20 CONDUCT BAKING ∽S21 PEEL OFF PROTECTIVE TAPE OF MARK 2 OF MEMBER E ~S22

FIG. 2	
FILM THICKNESS MEASURING PROCESS)	
SET MEMBER E TO FILM THICKNESS MEASURING UNIT	}~S23
DETECT MARK 2 BY IMAGE RECOGNITION MEANS	}~S24
MEASURE FILM THICKNESS ON THE BASIS OF MARK 2, AND STORE ERROR DISTRIBUTION DATA IN STORING MEANS	S25
TAKE OFF MEMBER E FROM FILM THICKNESS MEASURING UNIT	- 
(DEPICTING ADJUSTMENT PROCESS)	j -320
SET MEMBER E TO EB DEPICTING APPARATUS STAGE	<b>⊳</b> s27
DETECT MARK 2 BY SEM, AND OBTAIN POSITION COORDINATES OF MARK 2 ON EB DEPICTING APPARATUS STAGE	S28
BASED ON ERROR DISTRIBUTION OF SHAPE DATA (SHAPE OF MOTHER OPTICAL	, 1
SURFACE AND RESIST FILM THICKNESS) OF MEMBER E ALREADY MEASURED, MAKE SHAPE DATA OF DEPICTING PATTERN	<b>S29</b>
(DEPICTING PROCESS)	
BASED ON SHAPE DATA (SHAPE OF MOTHER OPTICAL SURFACE AND RESIST FILM THICKNESS) OF MEMBER E, ADJUST DOSE AMOUNT	_SA2
BASED ON MEMBER E AND SHAPE DATA OF DEPICTING PATTERN, DRIVE STAGE SO AS TO MATCH DEPICTING FIELD OF EB DEPICTING APPARATUS, AND GIVE A PREDETERMINED DOSE	_s30
TAKE OFF MEMBER E FROM EB DEPICTING APPARATUS STAGE	<b>├</b> -S31
(DEVELOPING PROCESS)	, 001
RESIST-DEVELOP MEMBER E, AND OBTAIN RESIST SHAPE	<b>├</b> -s32
(ETCHING PROCESS)	,
CONDUCT ETCHING AND TRANSFER RESIST SHAPE ONTO MEMBER E = OBTAIN MOTHER DIE	<b></b> S33
(ELECTROCASTING PROCESS)	] 000
ELECTRO-CAST MEMBER E AND OBTAIN (MEMBER E + ELECTROCASTING MEMBER)	<b>⊳</b> s34
SEARCH ID OF JIG USED IN THE FIRST PROCESS, BASED ON KEY OF ID OF MEMBER E IN PROCESS CONTROL DATA BASE, CONFIRM ATTACHING SURFACE OF JIG, TIGHTENING TORQUE AND WORKING ENVIRONMENTAL TEMPERATURE, MATCH CONDITION, AND ATTACH JIG TO (MEMBER E + ELECTROCASTING MEMBER)	-S35
CONFIRM WORKING ENVIRONMENTAL TEMPERATURE OF THE FIRST PROCESS IN PROCESS CONTROL DATA BASE, SET CONDITION, AND ON THE BASIS OF OUTER SHAPE OF MEMBER E OF (JIG + MEMBER E + ELECTROCASTING MEMBER), SHAPE OUTER SHAPE OF ELECTROCASTING SECTION	_S36
INTEGRATE BACKING MEMBER WITH ELECTROCASTING SECTION OF (JIG + MEMBER E + ELECTROCASTING MEMBER)	<b>S37</b>
ATTACH (JIG + MEMBER E + ELECTROCASTING MEMBER + BACKING MEMBER) TO PROCESSING MACHINE CHUCK	~S38
CONFIRM WORKING ENVIRONMENTAL TEMPERATURE OF THE FIRST PROCESS IN PROCESS CONTROL DATA BASE, SET CONDITION, AND ON THE BASIS OF OUTER PERIPHERY OF (JIG + MEMBER E + ELECTROCASTING MEMBER + BACKING MEMBER), FINISH OUTER PERIPHERY OF BACKING MEMBER	~S39
FINISH END SURFACE OF BACKING MEMBER SO THAT LENGTH OF (JIG + MEMBER E + ELECTROCASTING MEMBER + BACKING MEMBER) IS REGULATED VALUE	<b>S40</b>
TAKE OFF FROM DIE (JIG + MEMBER E) FROM (JIG + MEMBER E + ELECTROCASTING MEMBER + BACKING MEMBER)	S41
SHAPE ELECTROCASTING MEMBER ON THE BASIS OF OUTER SHAPE OF BACKING MEMBER OF (ELECTROCASTING MEMBER + BACKING MEMBER), AND OBTAIN METALLIC MOLD FOR MOLDING	_S42
END	

FIG. 3 (a)

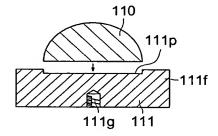


FIG. 3 (b)

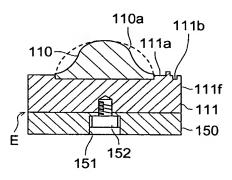


FIG. 3(c)

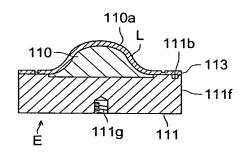


FIG. 3 (d)

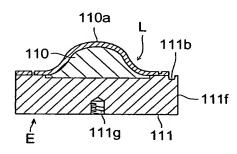


FIG. 3 (e)

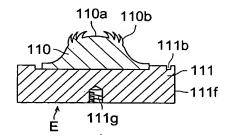


FIG. 3 (f)

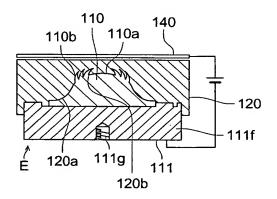


FIG. 3(g)

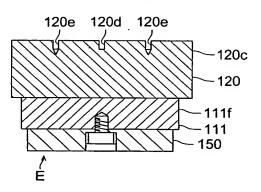


FIG. 4

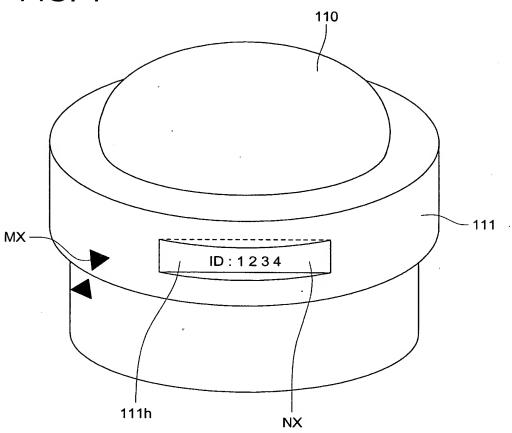
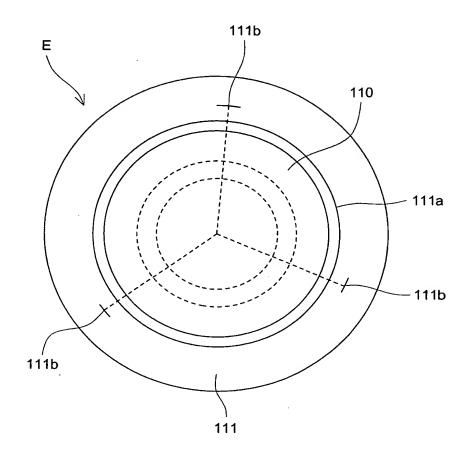
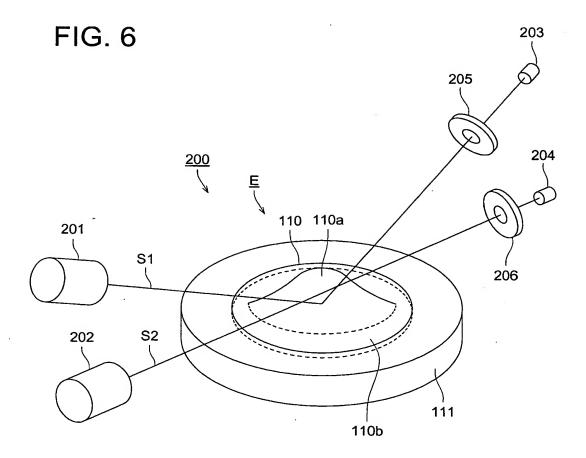


FIG. 5





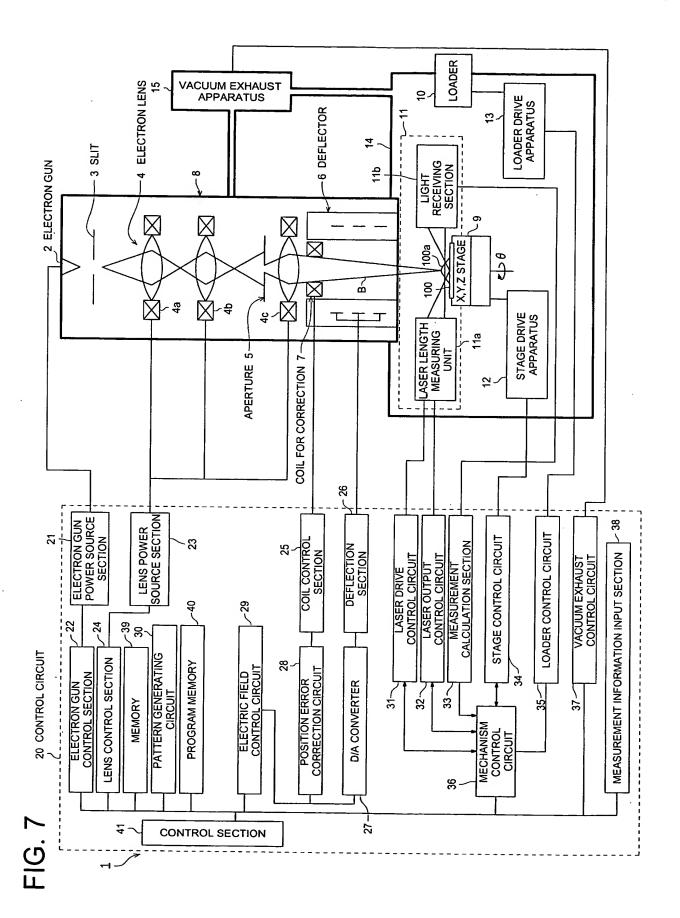
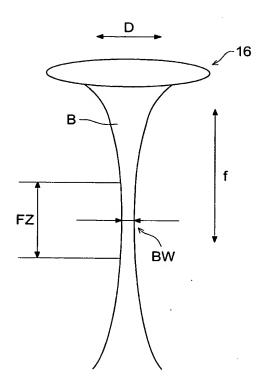
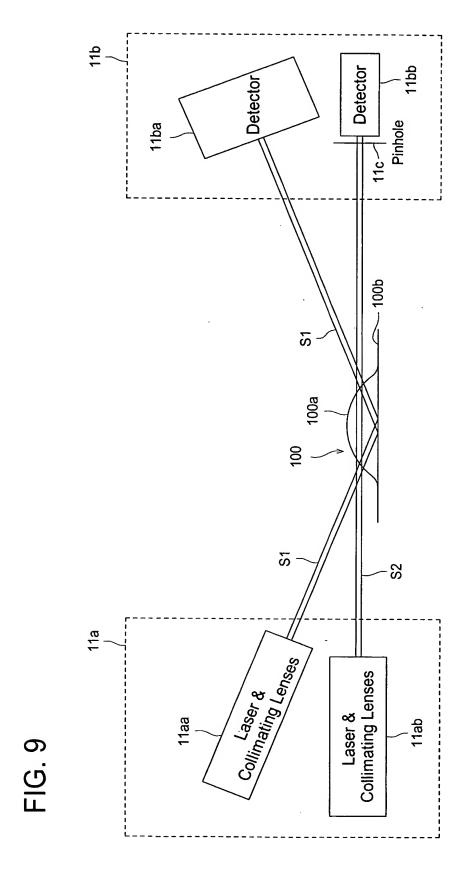


FIG. 8





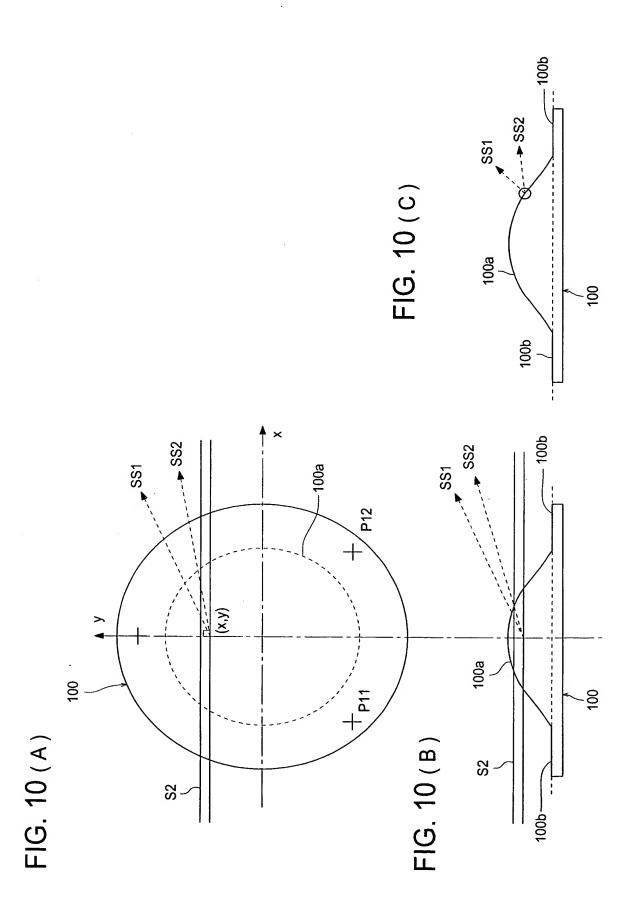


FIG. 11

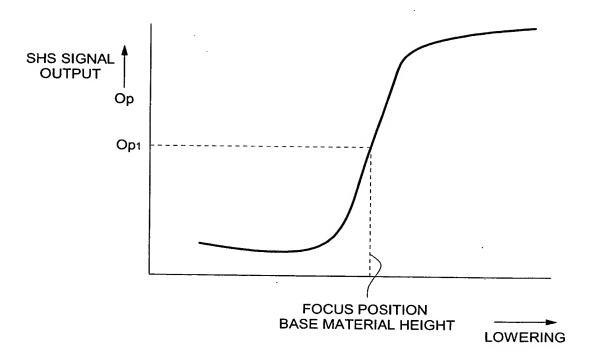


FIG. 12(A)

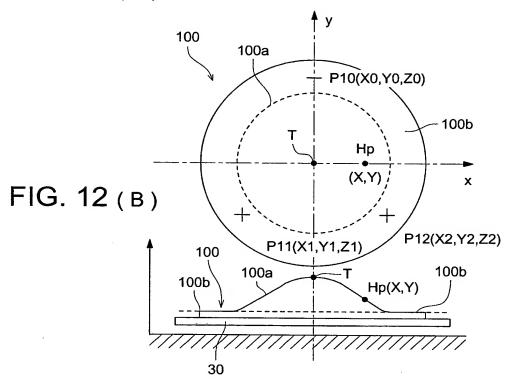
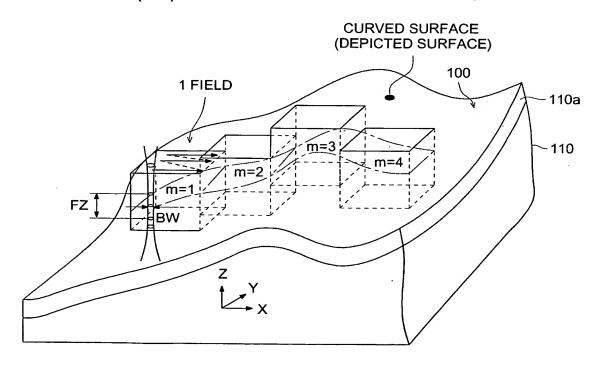


FIG. 12(C)





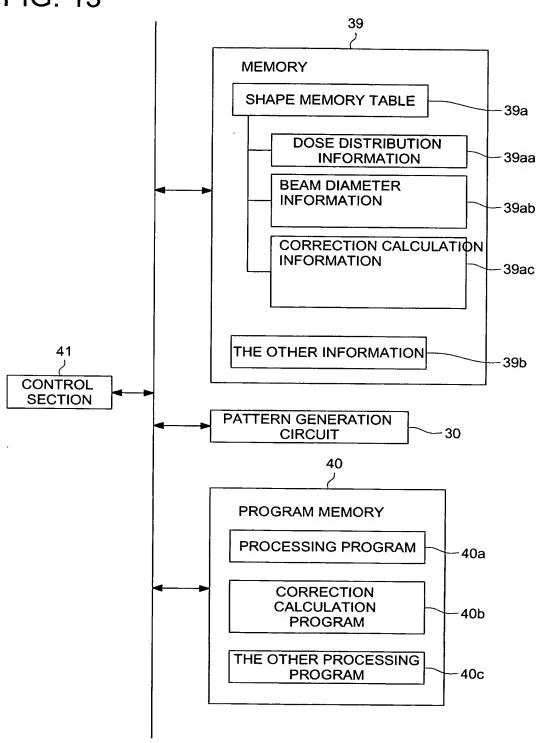


FIG. 14 (A)

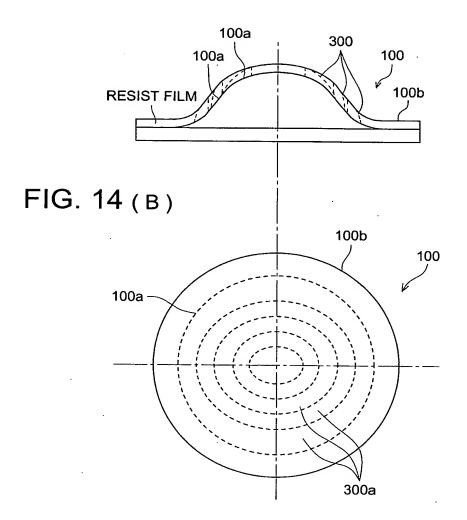


FIG. 15 (A)

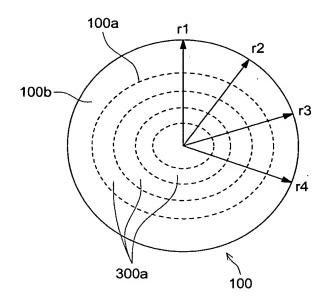


FIG. 15 (B)

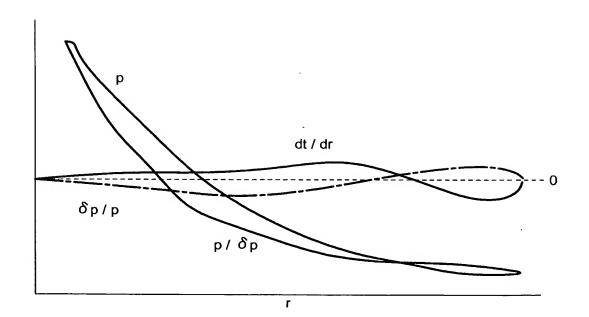


FIG. 16 (A)

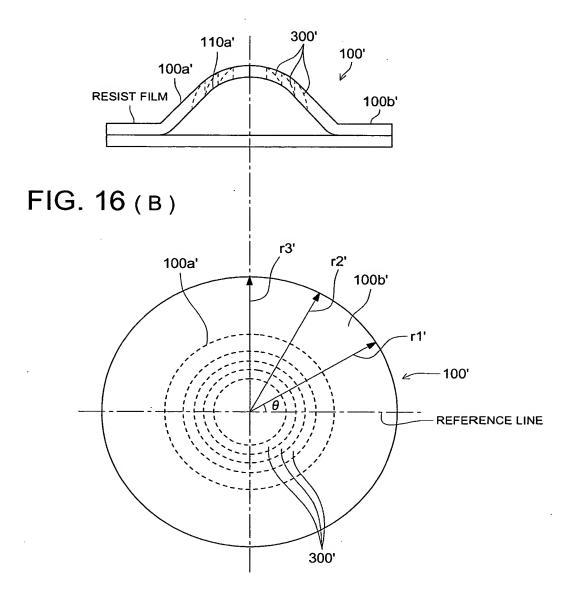
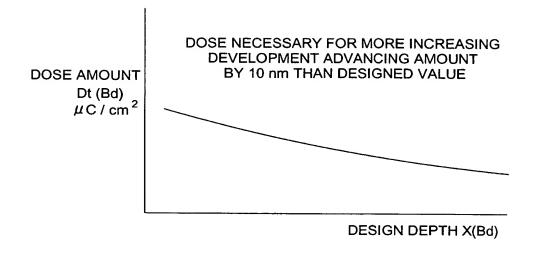


FIG. 17



## FIG. 18

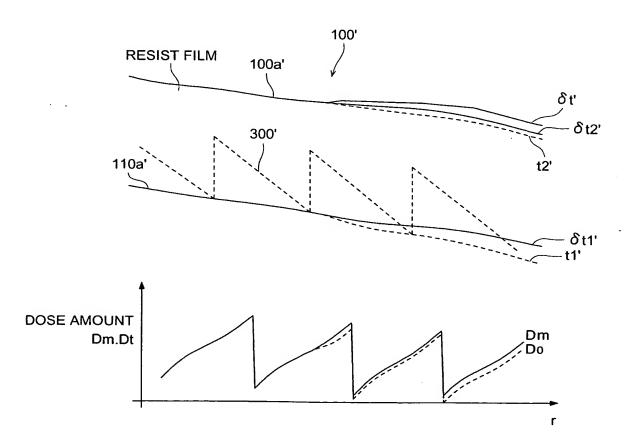


FIG. 19

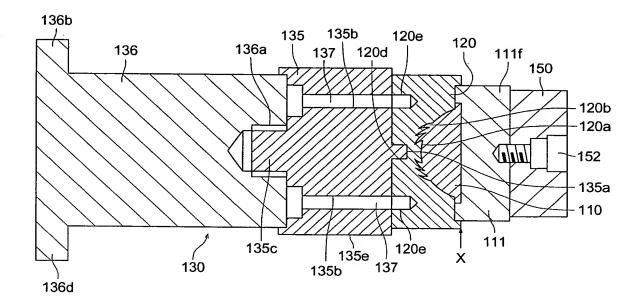


FIG. 20

